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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,025	09/23/2003	Peter Traneus Anderson	133167NV (MHM 15083US01)	1825
23446 7590 01/12/2009 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER KISH, JAMES M	
			ART UNIT 3737	PAPER NUMBER
			MAIL DATE 01/12/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/669,025	Applicant(s) ANDERSON, PETER TRANEUS	
	Examiner JAMES KISH	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-10 and 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed November 6, 2008 have been fully considered but they are not persuasive.

The Applicant states, "Slettenmark discloses that 'two **triaxial coils 32,34** are mounted' on a catheter 30, while 'there is one similar **triaxial** receiving or pickup coil system on catheter 36" (emphasis in original). See Remarks, page 10. The Applicant argues that Slettenmark lacks a single coil mounted on one of said receiver assembly and said transmitter assembly in conjunction with a transmitter coil trio and a receiver having a receiver coil trio. Catheter 30 represents either one of the transmitter or receiver while catheter 36 represents which ever remains (i.e., the receiver or transmitter, respectively). Therefore, catheter 30 has two triaxial coil arrangements and catheter 36 has one triaxial coil arrangement. In response to the Applicant's argument that Slettenmark does not teach a single coil because it instead teaches the use of another triaxial coil, it must be noted that a triaxial coil arrangement is made of individual coils. Therefore, Slettenmark teaches three single coils mounted to catheter 36 in addition to the first triaxial coil. The fact that it discloses additional structure not claimed is irrelevant.

For at least the reasons above, the rejection of the claims in the Office Action dated October 8, 2008 still stands and is repeated below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-8, 10, 12-13, 15, 17, 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Slettenmark (US Patent No. 6,266,552). Slettenmark discloses an arrangement for locating a measurement and/or treatment catheter in a vessel or organ of a patient. Claim 9 discloses a tracking system with at least a transmitter and a receiver unit. Claim 19 of Slettenmark discloses a transmitter comprising a coil system, selected from a group including, among others, a triaxial coil system and a single coil. Claim 20 discloses a receiver comprises a coil system from a group including, among others, a triaxial coil system and a single coil. Claims 21 and 22 provide for a plurality of different transmitters. These are also discussed at column 3, lines 20-26 of the disclosure of Slettenmark, where it is also stated that the catheter portion between the coil systems **32**, and **34** must be rigid such that the relative positions of the coil systems remain constant. Also see column 4, lines 35-44, column 6, lines 55-59. Column 8, lines 57-67 provides that the transducer configuration and distances between the transducers can be known and in knowing the other device can be located. Column 9, lines 12-18 discloses that transmitters can be mounted as well on the fixed reference catheter as on the measurement and treatment catheters and vice versa for the receivers means, thereby providing a reversal of parts for the location of the receiver

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and transmitters. Similarly, this cited portion provides that the teachings described for either transmitters and receivers type, whether they be ultrasound or electromagnetic, are encompassed by each other. Column 2, lines 54-59 discusses the use of this arrangement in alleviating hemisphere ambiguities, or as stated in the reference, "to distinguish the true catheter position from its mirror positions."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slettenmark in view of Ferre et al. (US Patent No. 5,800,352). Slettenmark discloses an arrangement for locating a measurement and/or treatment catheter in a vessel or organ of a patient. Slettenmark has been previously described in the rejection of claim 15. However, Slettenmark does not explicitly teach the exact methods of determining two positions and using predictions of a field model. Ferre teaches a registrations system and methods for use with position tracking and imaging systems in medical applications. Ferre teaches that a reference sensor is to be securely mounted to a transmitter assembly at a fixed distance from the center of the transmitter (column 10, lines 32-34). Furthermore, multiple receivers are utilized for error detection purposes (column 10, lines 42-67). It has been discovered that an error

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detection system sufficient to identify localized uniform distortions in the area of the medical instrument or headset may be designed by using two sensors separated by a fixed distance. Virtual locations are continuously calculated and compared with factory defined positions (column 11, lines 1 through column 12, line 53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the methods of Ferre with the system and methods of Slettenmark, thereby using the orthogonal coil structure with a single coil or Slettenmark as the two sensors discussed in Ferre. It would be obvious in order to detect errors in the positioning information localized around the sensors.

Regarding claims 9 and 14, both references teach having a single coil (Slettenmark) and/or a reference sensor (Ferre) in connection with either the transmitter or receiver. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include multiple single coils, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Regarding the “different fixed distances” absent some showing of criticality, it would be an obvious matter of design choice to provide different spacing between units and corresponding single coils in order to be able to have an identifier (i.e., the identifier being the predetermined spacing) for each transmitter/receiver used.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES KISH whose telephone number is (571)272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth S. Smith/
Primary Examiner, Art Unit 3737

JMK